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EXAMINER

PETERSON, CHRISTOPHER K

ART UNIT

PAPER NUMBER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10 March 2008 have been fully considered but they are not persuasive.

In regards to claims 1 and 2, the Applicant argues that neither the Voss (US Patent # 7,233,354) nor the Fossum (US Patent # 5,949,483) references teach on the basis of a predetermined reference quantity of light incident onto the imaging region, a gain of the adding circuit in a condition in which a quantity of the incident light is above the reference quantity is controlled to be smaller than a gain of the adding circuit in a condition in which a quantity of the incident light is below the reference quantity (See Remarks, Pg. 3 and 4). The Examiner respectfully disagrees. Specifically, noting the Voss reference, Fig. 1, Col.4, line 61 – Col. 5, line 17 shows that the gain control device (26) may be a variable analog amplifier that is connected between the A-D converter 28 and the CMOS sensor 24 to regulate the intensity of the electronic signal passing from the CMOS sensor 24 to the microprocessor 32 via the A-D converter 28. The intensity of the signal is also regulated by the microprocessor 32 via the D-A 30 converter that is interposed the microprocessor 32 and gain control device 26. The A-D converter converts the amplified analog signals from the gain control device 26 into digital signals of acceptable levels that are appropriate for the microprocessor 32 (Col.4, line 61 – Col. 5, line 6). Voss teaches that digital camera 10 is capable of operation in a variety of lighting conditions ranging from the very bright sunlit outdoors to very dimly lit or dark

Art Unit: 2622

situations (Col. 3, lines 42 – 44). Voss also teaches the microprocessor 32 operates under pre-programmed instructions that are loaded to the internal memory unit 36 and communicated to the microprocessor 32. Such instructions, or software, can enable the microprocessor 32 to decide whether to adjust aperture size, shutter speed, CMOS gain, or CMOS resolution, or any combination thereof, based at least in part on input from the light-level sensor 55 (Col. 5, line 65 – Col. 6, line 4). For the above reasons, the Examiner believes that Voss in view of Fossum do teach the limitation in claims 1 and 2.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER K. PETERSON whose telephone number is (571)270-1704. The examiner can normally be reached on Monday - Friday 6:30 - 4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NgocYen Vu can be reached on 571-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2622

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CKP

20 March 2008

2

***/Ngoc-Yen T. VU/
Supervisory Patent Examiner, Art Unit 2622***